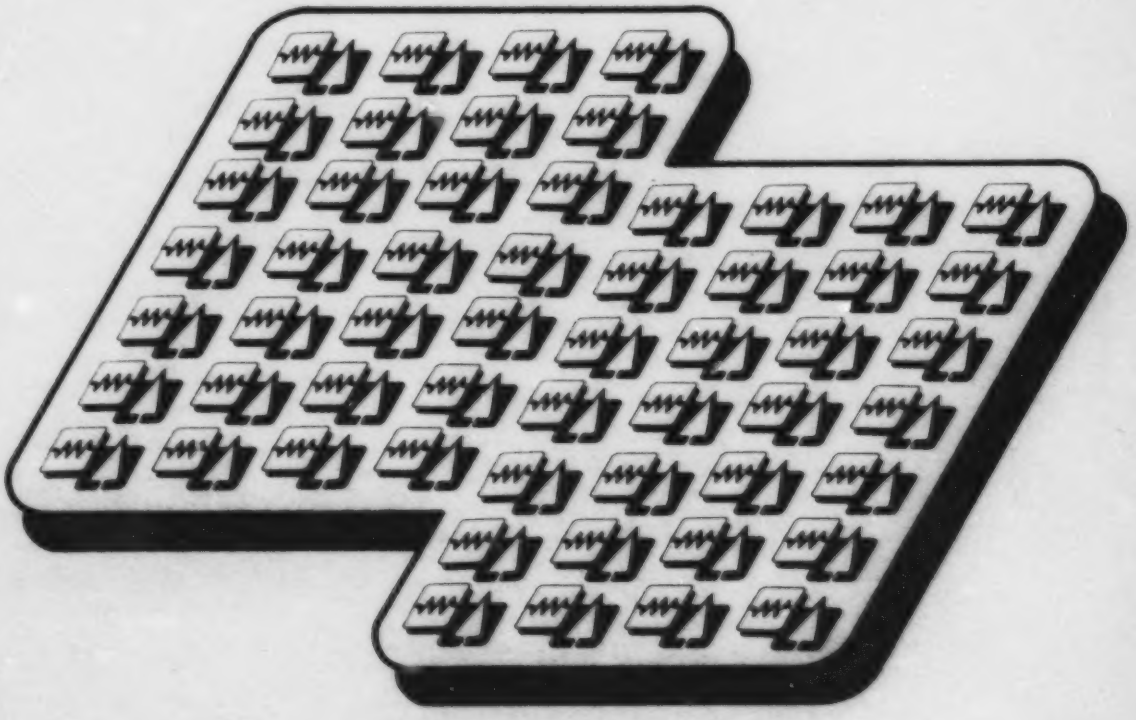
ANNUAL REPORT

Department of Energy and Forestry



Department of
Energy and Forestry

Fiscal Year: April 1, 1990 - March 31, 1991

92-04982/

Annual Report of the Prince Edward Island Department of Energy and Forestry

for the fiscal year ended

March 31, 1991

Honourable Barry Hicken, Minister

TO HER HONOUR

THE HONOURABLE MARION L. REID
Lieutenant-Governor of Prince Edward Island

May It Please Your Honour:

I have the honour to submit herewith the Annual Report of the Department of Energy and Forestry for the fiscal year April 1, 1990 to March 31, 1991.

I have the honour to be, Madam,

Your obedient servant,

Barry Hicken

Barry Hicken
Minister of Energy and Forestry

The Honourable Barry Hicken
Minister
Prince Edward Island Department of Energy and Forestry

Sir:

I have the honour to submit the Annual Report of the Department of Energy and Forestry for the fiscal year April 1, 1990 to March 31, 1991.

Respectfully yours,

J. Charles Campbell
Deputy Minister

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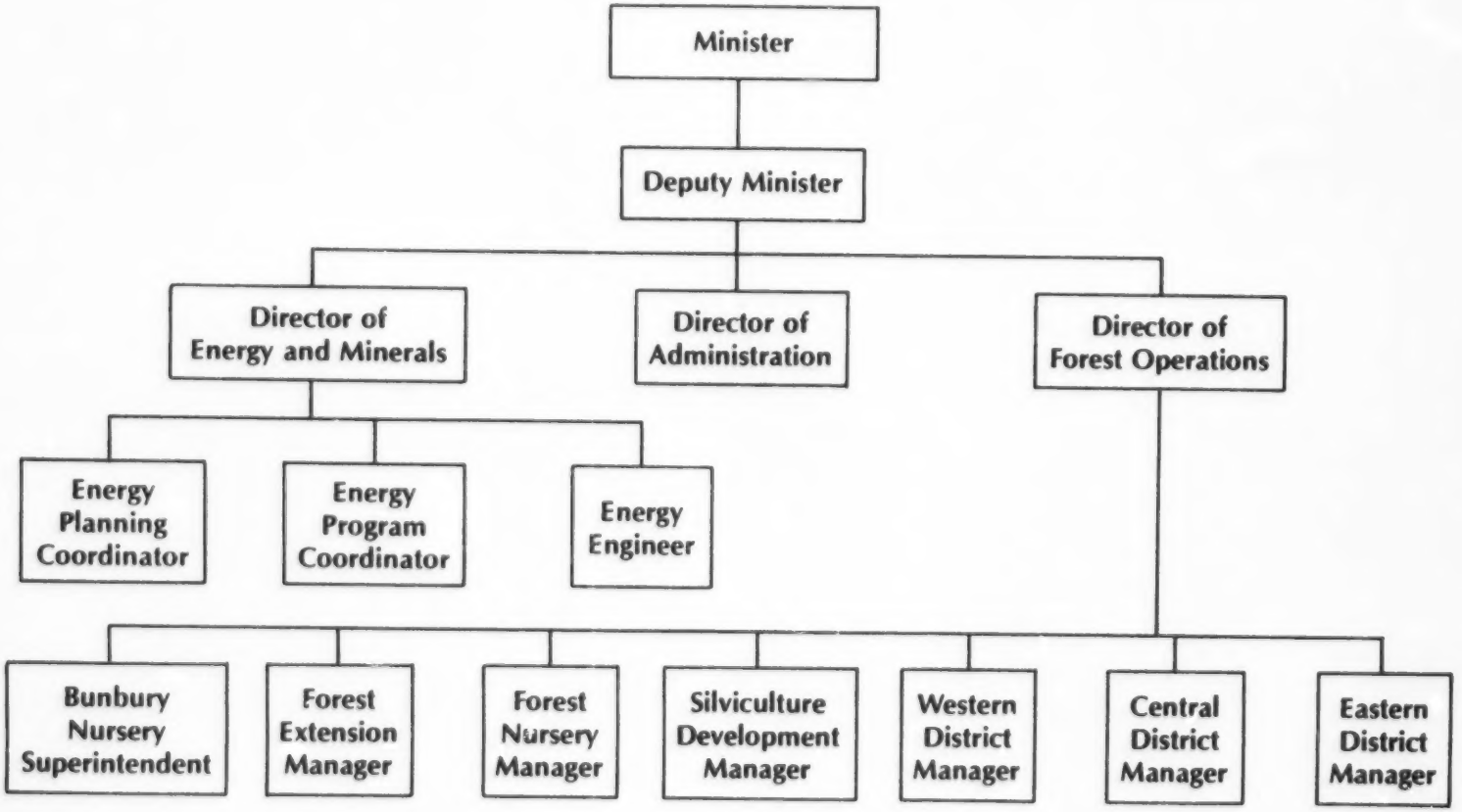
I. STRUCTURE OF THE DEPARTMENT



II. ENERGY AND MINERALS BRANCH

Introduction

The Energy and Minerals Branch of the Prince Edward Island Department of Energy and Forestry is responsible for the development and overall implementation of energy policy for the provincial government. This includes: evaluating progressive energy technologies and supply infrastructure appropriate for Island communities; ensuring secure and fairly-priced energy supplies for Islanders; providing information-based programs to the public concerning energy efficiency and renewable, alternate energy; and encouraging and regulating the exploration for minerals, oil and gas within the Province.

During the period of April 1, 1990, and March 31, 1991, the Energy and Minerals Branch was involved in several matters crucial to the Province's economic well-being including: ensuring Islanders have access to secure and fairly-priced energy sources by means of regulatory control; developing and demonstrating local renewable energy resources, i.e. biomass fuels; maintaining inter-governmental relations to represent the province's interests with respect to energy; and providing public information programs to promote the use of energy efficiency and alternate energy sources.

CANADA-PRINCE EDWARD ISLAND COOPERATION AGREEMENT ON ALTERNATE ENERGY DEVELOPMENT AND ENERGY EFFICIENCY (1989-94)

Funding for the Canada-Prince Edward Island Cooperation Agreement on Alternate Energy Development and Energy Efficiency, signed on February 12, 1990, totals $5,465,000 (Government of Canada) and $2,340,000 (Government of Prince Edward Island).

Purpose and Objectives of 1989-94 Cooperative Agreement on Alternate Energy Development and Energy Efficiency

The purpose of this Agreement is to implement specific programs for the encouragement of alternate energy utilization and energy efficiency measures on Prince Edward Island.

Agreement objectives are:

(a) to improve productivity and competitiveness of the commercial, industrial and agricultural sectors of the Prince Edward Island economy through establishing biomass fuel as a secure and competitively-priced alternative to imported fossil fuels;

(b) to enhance the strategic energy infrastructure and augment energy security and energy-use efficiency in the province;

(c) to increase production of renewable energy from local resources and to hasten the adoption of innovative energy production and conservation technologies; and

(d) to stimulate local employment, entrepreneurial and industrial opportunities in woodchip harvesting and transportation, as well as the biomass heating system fabrication and engineering by supporting the continued growth of the biomass energy industry on Prince Edward Island.

Description of Program Elements

1. **Energy Diversity Program** - for technical and financial support to aid the commercial/ institutional/industrial/ municipal sectors in converting to biomass-fuelled heating systems.
2. **Energy Efficiency Program** - for initiatives aimed at the efficient use of the existing energy supply, and particularly of electrical energy.
3. **Wood Supply Systems Program** - for the assessment, development and financial support of a wood supply infrastructure most conducive to the province's priorities of increased employment and entrepreneurial opportunities harmonious with the sustainable development of rural communities.
4. **Engineering and Policy Studies Program** - for the analysis required for consideration of energy policy and technological options which include district heating/cogeneration feasibility analyses.
5. **Communication and Programs** - for facilitating communication between program management/ clients as well as energy producers/consumers.
6. **Evaluation Program** - for evaluation of the Agreement objectives and programs by collecting data on Prince Edward Island's energy supplies, energy usage, energy demand, and the degree to which these have been satisfied by Agreement programs on energy efficiency and alternate energy.

LEGISLATION

The Minister of Energy and Forestry is responsible for the Petroleum Products Act and the Electric Power and Telephone Act. During the year, the Minister was invoved in several matters pertaining to these two Acts, including a rewrite of the Petroleum Products Act.

Petroleum Products Act

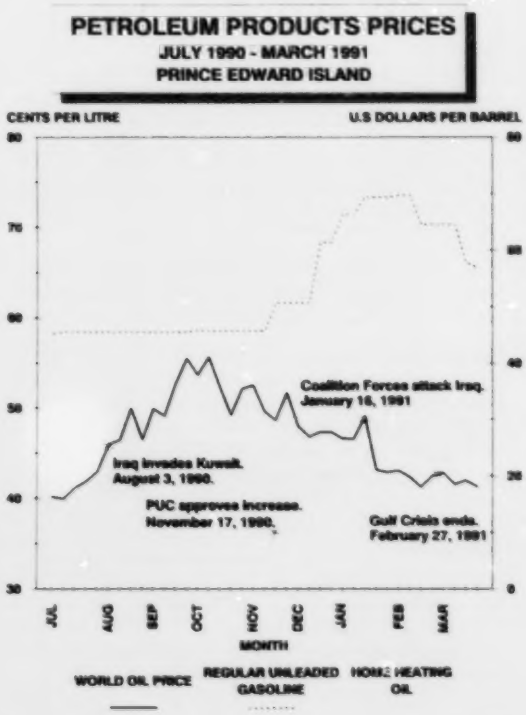
A review of the Petroleum Products Act was initiated through a Committee of the Legislature. The result was the formation of a new Petroleum Products Act. On April 29, 1990, the Legislative Assembly assented to the new Act which was subsequently proclaimed on February 1, 1991.

REGULATORY MATTERS

Petroleum Pricing

Following Iraq's invasion of Kuwait, petroleum wholesalers on Prince Edward Island applied for price increases in September, 1990, to reflect increased world crude prices. The Minister intervened in subsequent hearings to assist the Public Utilities Commission (PUC) in ensuring prices did not increase more than justified by world events. The result was a delay in price increases until November, 1990, and by an amount which was considerably less than occurred in other provinces.

When military events became clear in the early months of 1991, world oil prices tumbled dramatically. Nonetheless, the wholesalers on Prince Edward Island resisted decreasing petroleum product prices in parallel with decreases elsewhere. As a result, the PUC held public hearings in which the Minister and others intervened in an attempt to ensure prices in the province were not maintained at unjustifiably high levels. As a result of the hearings, the Commission ordered significant reductions in March, 1991.



Electricity Rates

In September, 1990, the Public Utilities Commisson consented to Maritime Electric Company, Limited increasing town/rural electricity rates by approximately twice the increase the utility was seeking from city customers.

When the PUC later reopened an earlier Rate Area Boundaries Hearing in order to obtain further public input into appropriate rate policies for Prince Edward Island, the Minister and numerous other parties intervened in the hearings to support uniform rates for each class of Maritime Electric customers. After the hearings, the Commission concluded that uniform rates should be implemented on Prince Edward Island and ordered Maritime Electric to phase out its geographic rate differences.

The annual capital budgeting hearing for Maritime Electric was held in December, 1990. The Minister intervened at the hearing which scrutinized a number of major acquisitions made by the utility in 1989 and 1990 and planned for 1991. The hearing ultimately resulted in the approval of many of Maritime Electric's past and proposed expenditures.

District Heating Display Panels used at fairs and exhibitions.

CHARLOTTETOWN AREA COGENERATION PROJECT (Proposed)

In March, 1991, the Department of Energy and Forestry, with co-proponents, Maritime Electric Company, Limited; and the P.E.I. Energy Corporation, filed a project registration for the Charlottetown Area Cogeneration Project with the provincial Department of the Environment. This is the initial requirement for the project to conform to the Environmental Protection Act.

The proposed project consists of the construction of a combined biomass and light fuel-oil fired generating station with a capacity of approximately 25 - 30 megawatts and the expansion of the district heating network in the Greater Charlottetown area.

Maritime Electric Company, Limited, the principal electrical utility on the Island, has forecast a requirement for approximately 35 megawatts of new capacity to meet the needs of the province by the year 1994. The proposed plant would meet most of this capacity shortfall while providing several other benefits to the province including:

- a heating source for an expanded district heating network;
- the retention of energy dollars on Prince Edward Island which maximizes benefits to Islanders through job creation in the Forestry and Energy sectors;

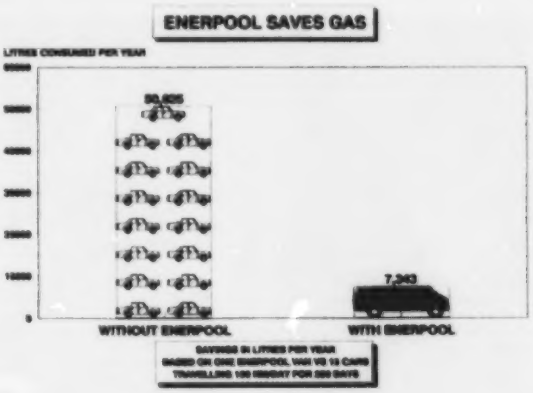
- sustainable and environmentally benign forest development through the harvesting of an abundant source of low quality wood and the reforestation of cutovers with superior quality seedlings to be grown for higher end-valued products such as sawlogs;
- a measure of energy security through on-Island generation of electrical power with an indigenous fuel source.

THE MANUFACTURING AND PROCESSING INDUSTRIES ELECTRICITY ASSISTANCE PROGRAM

This program offered qualifying industrial customers a 20 per cent rebate at source on their monthly electrical bills to enable Island firms to compete with their off-Island competitors. Approximately 100 firms took advantage of this program during the year.

EDUCATION AND INFORMATION PROGRAMS

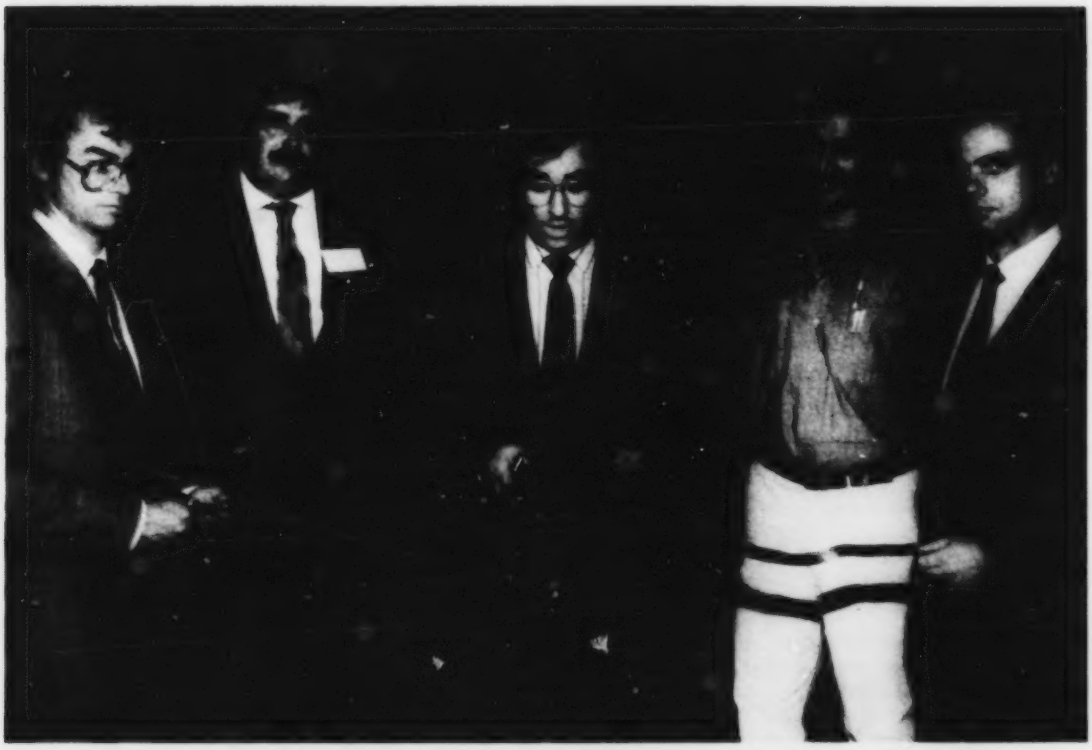
1. **The "Comfort Plus" Information Program:** The Energy and Minerals Branch has an information program designed for Island homeowners to increase energy efficiency in their homes. The program consists of an information display and a series of booklets that include advice on "Air Leakage Control", and "Condensation and Ventilation." New publications during 1990-91 were "Windows and Doors" and "Home Heating Systems." Technical advice concerning home energy efficiency topics may be obtained by calling 1-368-5010 (Toll Free) on Prince Edward Island.
2. **Furnace Efficiency Kits:** Homeowners may assess their home heating systems using one of seven efficiency test kits available on loan, free of charge, from the Branch Office in Charlottetown and from three Regional Services Centers (O'Leary, Summerside and Souris).
3. **Hardware Store Book Shelves:** The Energy and Minerals Branch developed and distributed attractive bookshelves to be used as a point-of-sale application in retail outlets which sell energy conservation material and products. The shelves contain free copies of the "Comfort Plus" Information series promoting home energy efficiency to the "do-it yourselfer" as well as the professional renovator.
4. **Energy Cost Index:** Each month, the comparative costs for fuel oil, gasoline, electricity and propane on Prince Edward Island are recorded and made available to the public upon request.
5. **Weekly Gas Price Survey:** A weekly survey of retail gas prices of stations within the greater Charlottetown area is compiled. This information is shared with Energy, Mines and Resources in Ottawa for publication in their national weekly pump price survey. Average weekly retail prices for specific fuel blends are available to the public upon request through the Energy and Minerals Branch.
6. **P.E.I. EnerPool:** The EnerPool Program, which began in 1978, continues to demonstrate the potential for energy conservation using ride-sharing transportation. Four routes provide weekday transportation to and from Charlottetown. It is estimated that each route reduces gasoline consumption by up to 43,000 litres per year.



7. **Renovation Month 1990:** The Energy and Minerals Branch sponsored and participated in "Renovation Month" in October, 1990. The main event, the "Plan Your Renovation Days" trade show, featured over twenty exhibitors promoting products and services for home renovations. A series of seminars on Energy Efficient Renovations was delivered by Mr. Laverne Brubaker, Canada's "Renovator of the Year."
8. **Public Seminars:** The Energy and Minerals Branch sponsored and delivered a series of seminars for homeowners on improving energy efficiency in the home. Six seminars were held across the province during November, 1990.
9. **District Heating Display:** The Energy and Minerals Branch developed and produced a public information display on "District Heating." Emphasizing the Prince Edward Island experience, the display showed District Heating's numerous benefits. The District Heating display was featured at the P.E.I. Teachers' Federation Annual Convention, the 1991 P.E.I. Business and Industry Show, and many other events across the province.
10. **P.E.I. Provincial Science Fair:** The Energy and Minerals Branch participates in the P.E.I. Provincial Science Fair by offering specialty prizes in the areas of "Renewable Energy" and "Energy Conservation." This year, the Energy and Minerals Branch cash prizes were awarded to seventeen young Island students for their excellent efforts in the fields of renewable energy or energy conservation at the P.E.I. Provincial Science Fair.
11. **Learning Energy and Forestry Newsletter:** The Energy and Minerals Branch, in partnership with the Forestry Branch, produces this publication

which promotes the learning of selected energy and forestry related issues. Published three times during the school year, the newsletter is targeted to junior high school students and covers such topics as renewable energy, forest management and environmental issues.

12. **P.E.I. Science Olympics:** Teams of Grade Ten Science students from Island High Schools participated in the 1990 P.E.I. Science Olympics co-sponsored by the Departments of Energy and Forestry, and Education.



*Hon. Barry Hicken (centre) officiated at the opening of the **Plan Your Renovation Trade Show** with, from the left, Ron Estabrooks of Energy and Forestry, Brian Dollar of the P.E.I. Home Builders Association, Dave Webster of Holland College and Mike Proud also of Energy and Forestry.*

III. FINANCIAL REPORT

DEPARTMENT OF ENERGY & FORESTRY
EXPENDITURE SUMMARY
FISCAL YEAR 1990-1991

EXPENDITURES		
Departmental Management	$ 432,904	$ 432,904
Energy & Minerals Branch		
Branch Management	$ 378,221	
E.R.D.A. Sub Agreement	164,948	
Electrical Rebate Relief Program	1,170,574	$1,713,743
Forestry Branch		
Branch Management	$1,318,739	
Crown Land Forest Improvement	400,124	
Bunbury Nursery	220,391	
Firefighting	66,553	
Hedgerow Shelterbelt	43,722	
Headquarters Administration	155,919	
Extension	147,703	
Silviculture Development	130,708	
Industry Development	84,197	
Biomass Inventory	400,267	
Seedling Production	460,343	
Eastern District - Crown Land	119,640	
Central District - Crown Land	43,962	
Western District - Crown Land	74,243	
Eastern District - Administration	306,943	
Central District - Administration	269,476	
Western District - Administration	339,145	
Private Land Program	1,466,518	$6,048,593
Departmental Total		$8,195,240
REVENUES		
Departmental Management		
Energy & Minerals Branch		
Branch Management	$ 16,477	
		$ 16,477
Forestry Branch		
Bunbury Nursery	136,119	
Hedgerow Shelterbelt	7,348	
Headquarters Administration	73,200	
Silviculture Development	97,821	
Industry Development	44,858	
Forest Biomass Inventory	168,987	
Seedling Production	343,296	
Eastern District - Crown Land	134,459	
Central District - Crown Land	44,891	
Western District - Crown Land	111,713	
Eastern District - Administration	195,544	
Central District - Administration	160,016	
Western District - Administration	223,043	
Private Land Program	1,162,541	$2,903,836
Departmental Total		$2,920,313

IV. FORESTRY BRANCH

Introduction

The Forestry Branch of the Department of Energy and Forestry is responsible for forest management programs on private and Crown lands within the province, including the maintenance and updating of forest inventory information, tree improvement operations, forest industry development, information and education programs for school children, woodlot owners, and the general public, and production of tree seedlings for reforestation efforts. Forest fire control and the management of Bunbury Nursery are also responsibilities of the Branch.

In 1990-91, the Private Land Silviculture budget was increased by 25% to $1.46 million. This was prompted by a major increase in the number of new clients requesting services under the Private Land Program. The heightened interest created a record year for dollars spent and work completed under the Canada-Prince Edward Island Forest Resource Development Agreement (FRDA).

Most private land objectives were met; but the decline in pulpwood markets meant the quantity of site reclamation work done was lower than first forecasted. This work included site preparation, stand improvement, road and bridge construction, and the planting of close to 1.6 million trees on FRDA client properties.

Site reclamation work on Crown land suffered due to poor pulpwood markets, but plantation maintenance, road construction, and stand improvement work met or exceeded objectives. Approximately 230,000 seedlings were planted on Crown land reforestation sites.

In order to ensure that private and Crown land plantations are maintained and managed, a comprehensive monitoring and assessment program was completed on plantations established in 1986, 1989, and 1990. These studies checked the overall development as well as survival rates of the seedlings.

In the area of environmental management, a study on water temperatures in selected Island watersheds was initiated. Findings from forest bird surveys were used to revise Wildlife Management prescriptions in the Schedule of Rates and Standards. Staff also participated in a review of national and provincial pesticide registration requirements.

CANADA-PRINCE EDWARD ISLAND FOREST RESOURCE DEVELOPMENT AGREEMENT (FRDA)

The five-year (1988-93) 24 million dollar Forest Resource Development Agreement (FRDA) is funded by the Government of Canada and the Government of Prince Edward Island, 59% and 41% respectively. The purpose of this Agreement is to undertake programs of intensive forest management, research and development, technology development, and public information and education on Prince Edward Island.

Agreement objectives are:

a) to promote the appropriate utilization of the available resource and to ensure prompt reforestation of harvested areas with desirable species;

b) to improve the growth rate of high quality products in existing stands;

c) to improve the age-class structure of the softwood covertype;

d) to develop and foster a sense of forest management responsibility and capability within the private sector, including private woodlot owners and the industry;

e) to investigate and promote industrial development and marketing opportunities in support of the intensive forest management objectives;

f) to improve the quality of the existing forest data base and facilitate its updating, to ensure that intensive management program goals are evaluated, modified and achieved in an effective and efficient manner;

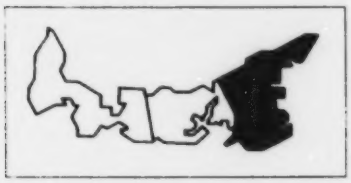
g) to undertake research and development in support of intensive forest management programs, forest protection and forest utilization, and to introduce and transfer technologies appropriate to the forest industrial and resource environment;

h) to improve the public perception of forestry on Prince Edward Island and, in particular, the public's understanding of the problems and opportunities which face the sector and the significant commitment required on behalf of the private sector and governments to ensure sustainable development of the resource;

i) to promote increased utilization of the resource by all forest users; and

j) to contribute to the economic development of the Island's forest sector, including the improvement of employment opportunities in the sector, in order to increase the contribution of the sector to the provincial and national economies.

Highlights of 1990-91 included: completion of the Forest Industry Employment Survey, participation in SILVILOG '90, improved wildlife management standards, and initiation of the 1990 forest inventory.



DISTRICT OPERATIONS

The three Forest District offices look after woodlot management activities on private and Crown lands; co-ordinate forest fire control activities; assist with insect and disease surveys; conduct research projects, and offer extension services within their respective areas.

District staff participated in a variety of extension and education activities including promoting National Forest Week, Project Learning Tree workshops, and school tours and lectures.

BUNBURY NURSERY

Bunbury Nursery provides ornamental plant stock for beautification projects, information on landscaping, and information on insect and disease problems pertaining to household and lawn plants.

The Landscape Assistance Grant Program provided support to eight projects, two in King's county and six in Queen's county.

Revenue generated by nursery sales in 1990-91 was $136,119.

FOREST INFORMATION AND EDUCATION

The Forest Information and Education section is committed to keeping woodlot owners, school children and the public informed about Island forests.

In 1990-91, 12 issues of *Woodlot Views* were produced featuring subjects of interest to Island woodlot owners. In addition 52 radio shows were aired on similar subjects. New forest management display panels were produced, as were a series of press releases on a variety of forest management topics.

Staff also assisted with the development of programs for SILVILOG '90. This international logging exhibition drew almost 13,000 visitors from across the Maritimes, Canada, and several other countries. Presentation of the first P.E.I. Woodlot Owner of the Year Award was made at SILVILOG '90. This annual award recognizes outstanding achievement and dedication to woodlot management by an Island woodlot owner who participates in the FRDA program.

Federal Minister of Forestry, Frank Oberle, congratulates John Cecil Richard, P.E.I.'s first Woodlot Owner of the Year. Mr. Richard owns a woodlot in Grandview and manages it for a variety of forest products.

TREE IMPROVEMENT

The Tree Improvement Section seeks to produce first generation improved seed in quantitites suitable for reforestation programs. In 1990, approximately 2,200 grafts using white spruce, red spruce, white pine, and larch were produced and will be planted in seed orchards in 1991.

Youth education focused on the new Grade 10 core science program, *Science, Technology, and Society*. The forestry module entitled "The Forest: Understanding It, Using It, Keeping It", uses trees to teach biology, as well as illustrates forest product technologies applications and their subsequent affects on society. Staff also assisted Forestry Canada deliver Project Learning Tree through facilitator, staff, and teacher workshops.

Approximately 9,000 people visited the Forest Exhibition Trailer at a variety of community fairs. Maintenance work continued on the six provincial Demonstration Woodlots and a new nature trail was constructed at the Foxley River Demonstration Woodlot.

INDUSTRIAL DEVELOPMENT

Industry Development seeks to improve the productivity of the contracting sector by assisting with the

recruitment and training of silviculture workers, and by encouraging the development of new and existing forest product markets.

A forest industry employment study was initiated to provide a better understanding of the problems and opportunities facing the forest sector. The recommendations of this study will guide future training and upgrading programs for forest workers.

Several pieces of small equipment were demonstrated at SILVILOG '90. The Bogie-Wheeled Tipping Trailer and Cable Logger attracted wide interest as did several other small pieces of equipment. Assistance was offered to the Old-time Woodsmen's Association to allow them to participate in a Maritime competition at SILVILOG '90.

Information on small forestry equipment was provided to a variety of woodlot owners and contractors. A chainsaw work bench for blocking wood and a skidding sled were designed and constructed by Forestry staff and a brochure promoting and describing these pieces of small equipment was produced and distributed to interested agencies.

Tree climbing skills are essential when harvesting cones and scions (twigs) from superior trees. Material gathered in this collection process will be used in breeding programs to improve the quality of reforestation stock.

Many grafts have already been planted in the Dover Seed Orchard near Murray River. This facility produces genetically improved seed for Island reforestation efforts. In 1990, over 8,000 Norway spruce seedlings from 30 origins were planted for provenance testing at the Dover Seed Orchard.

The Department also cooperated with Forestry Canada and the University of New Brunswick in the planting of a larch provenance test. Work continued on the installation of the irrigation system in Dover which provides water for the growing stock. All orchard maintenance and sanitation work was completed on schedule.

SEEDLING PRODUCTION

Seedlings for reforestation efforts on private and Crown lands are produced at the J. Frank Gaudet Tree Nursery in West Royalty. During the 1990 planting season, 2.26 million trees were planted across the province. The nursery currently produces seven softwood species including white pine, red pine, Austrian pine, white spruce, black spruce, eastern larch and balsam fir. Another 2.64 million tree seedlings were grown for the 1991 planting season.

Unfortunately, 1990 was a poor cone production year, so no Austrian pine or balsam fir seed was collected. Only 94 bushels of black spruce and white pine cones were gathered.

Many youth groups such as Scouts, Cubs, Guides and 4 H-ers attended the annual National Forest Week Open House. They came to see the many displays and booths sponsored by various forest interest groups.

Staff also gave numerous tours to school groups, kindergartens, and university students. The nursery also provided space for the Annual National Forest Week 1990 Open House. Close to 500 Islanders visited the open house to learn more about the importance of Prince Edward Island's forest sector.

FOREST INVENTORY AND DYNAMICS

The role of Forest Inventory and Dynamics section is to improve the quality of the forest data base, to update

existing forest growth and management information systems, and to improve wood supply models.

In 1990-91, 60 new permanent sample plots (PSP) were established in red pine plantations and white spruce thinnings. These PSPs will be used to monitor the long-term development of managed forest stands. Site index curves for white pine were developed for inclusion in the Forestry Handbook providing field staff with more accurate management information.

Work began on the 1990-92 Forest Inventory, with the purchase and loading of 212 LRIS base maps onto the Geographic Information System. Aerial photographs for the inventory were taken in August, and work began on the interpretation and digitizing of the information. The Forest Inventory will be used to prepare the State-of-the-Forest report in 1992, and to guide the future development of the resource.

Work began on the 1990 Forest Inventory. Minister of Energy and Forestry, Barry Hicken, reviewed the technology used to compile and analyze the data and received an update from Bob Nicholson, Forest Inventory Supervisor.

FOREST FIRE REPORT

In 1990, the fire season was relatively good as only 101 hectares, mostly grass and barrens, were burnt. Incendiary and resident fires continued to be the main cause of forest fires. Fire statistics breakdown as follows:

	Number	Hectares Burnt
Recreation	2	0.3
Resident	11	27.7
Industry	2	0.7
Incendiary	15	53.1
Unknown	8	19.9
Total	38	101.7

Staff training and public information continued to be cornerstones of the Department's fire suppression program. Several staff members attended courses on the use of foam, and forest fire investigation methods. Advice on liability and fire management training was offered to the Blueberry Growers' Association in order to help them improve their knowledge of controlled burning techniques for blueberry production.

Several new publications were produced including a pamphlet for landowners explaining their responsibility for fire management. Public service announcements were prepared for television and radio stations to encourage the reporting of forest fires to a centralized forest fire number.

While not as common as they once were, horses are still a popular method of removing forest products. Horses are able to operate in sensitive areas, such as stream banks, without harming the site.

Wanson Hemphill of Covehead was the Central District winner of the 1990 Woodlot Owner of the Year Contest. Barry Hicken, Minister of Energy and Forestry, presented the award recognizing Mr. Hemphill's contribution to woodlot management through his work as a forest contractor and biomass harvester.

TABLE 1
CROWN LAND IMPROVEMENT WORK UNDER FRDA
1990-91

		COMPLETED 1990-91	CUMULATIVE 1988-91
Site Reclamation	(ha)	34	114
Softwood Improvement	(ha)	16	70
Hardwood Improvement	(ha)	10	23
Road	(km)	20	40
Bridges	(m2)	0	12
Culverts	(#)	13	21
Boundaries	(km)	30	90
Site Preparation	(ha)	164	471
Planting	(ha)	102	230
Plantation Maintenance	(ha)	111	111

TABLE 2
PRIVATE LAND IMPROVEMENT WORK UNDER FRDA
1990-91

		COMPLETED 1990-91	CUMULATIVE 1988-91
Site Reclamation	(ha)	536	1339
Softwood Improvement	(ha)	170	360
Hardwood Improvement	(ha)	184	367
Road	(km)	78	222
Bridges	(m2)	77	135
Culverts	(#)	51	136
Boundaries	(km)	82	261
Site Preparation	(ha)	795	2062
Planting	(ha)	721	1337
Plantation Maintenance	(ha)	580	1104

TABLE 3
MANAGEMENT PLAN PRODUCTION SUMMARY
1990-91

	EASTERN DISTRICT	CENTRAL DISTRICT	WESTERN DISTRICT	TOTAL
Plans by Staff	60	47	44	151
Plans by Consultants	33	33	72	138
Totals	93	80	116	289

TABLE 4
MANAGEMENT PLANS PRODUCED TO DATE
1988-91

	EASTERN DISTRICT	CENTRAL DISTRICT	WESTERN DISTRICT	TOTAL
Staff	173	135	137	445
Consultants	78	33	217	328
Totals	251	168	354	773

TABLE 5
ESTIMATES OF PRIMARY FOREST PRODUCTION
FOR PRINCE EDWARD ISLAND
(000's m³)

	1987	1988	1989	1990
Sawlogs	86	91	106	110
Pulpwood	55	46	66	65
Other Round Wood	28	28	28	28
Total Round Wood	169	165	200	203
Fuelwood	310	310	216	216
Fuel Chips	17	29	29	30
TOTAL PRODUCTION	665	669	645	652

TABLE 6
J. FRANK GAUDET TREE NURSERY
CROWN LAND AND PRIVATE LAND PLANTINGS
1990-91

	Central District	Eastern District	Western District	Special Projects	Total Districts
Red Pine	127,303	198,735	96,021	13,977	436,036
White Pine	41,319	55,310	18,001	11,645	126,275
Austrian Pine	21,335	10,666	25,868	12,236	70,105
White Spruce	131,788	99,637	76,954	13,418	321,797
Black Spruce	147,355	391,652	207,121	3,152	749,280
Eastern Larch	70,686	150,535	204,114	4,933	430,268
Balsam Fir	44,853	60,028	23,534	3,945	132,360
Totals	584,639	966,563	651,613	63,306	2,266,121